

Amendments to the Claims

This listing of the claims will replace all prior versions and listings of claims in the application.

Listing of the Claims

1 - 24. Please cancel claims 1-24 with prejudice to reinstate them or file divisional applications thereon.

25. (Withdrawn) A seal for an elongated link member, said link member extending between an implantable apparatus for implantation in a host body and a control mechanism, the link member extending through an opening in a housing, wherein the seal comprises: a tubular membrane having two openings, one opening being sealed to said housing, the other said opening being sealed to said link member such that fluid entering said housing around said link member is trapped by said membrane, said membrane flexing to allow movement of the shaft.

26. (Withdrawn) The seal of claim 25, wherein said membrane is sealed to said link member by gripping means extending around said membrane and said shaft.

27. (Withdrawn) The seal of claim 26, wherein said gripping means comprises a coil.

28. (Withdrawn) The seal of claim 25, wherein said membrane comprises a bellows that folds inwardly when the link member is moved axially away from an interior the housing, and expands when the link member is moved axially into the housing.

29. (Withdrawn) The seal of claim 28, wherein said bellows includes a reinforcing ring so that folding of said bellows is controlled.

30. (Withdrawn) An operating mechanism for a constricting member for controlling fluid flow in a body canal, the constricting member being actuatable between open and closed positions, the operating mechanism comprising:

an axially moveable link member operatively connected to said constricting member for actuating said constricting member;

operating means for axially moving said link member; and

a coupling for selectively transmitting axial movement from said operating means to said

link member, said coupling being operatively connected between said link member and said operating means.

31. (Withdrawn) The operating mechanism of claim 30, wherein said coupling comprises a compressible member.

32. (Withdrawn) The operating mechanism of claim 31, wherein the compressible member is provided in a moveable casing, and wherein said link member is operatively connected to said compressible member, the motor acting to move said casing, said compressible member acting to move said link member.

33. (Withdrawn) The operating mechanism of claim 30, wherein said coupling comprises magnets.

34. (Withdrawn) The operating mechanism of claim 33, wherein said coupling comprises a magnet attached to an end of said link member, and at least one magnet attached to said operating means.

35. (Withdrawn) The operating mechanism of claim 34, wherein said at least one magnet attached to said operating means is generally annular, and extends around said magnet attached to said link member.

36. (Withdrawn) The operating mechanism of claim 33, further comprising a manual override system including an additional magnet having sufficient magnetic force to activate said coupling to transmit axial movement to said link member from outside the host body.

37. (Withdrawn) A method of controlling fluid flow within a host body comprising:
implanting a constricting member around a body canal, the constricting member reducing fluid flow in the body vessel when in a closed position;

implanting a control mechanism in the host body;
providing and implanting a link member between said constricting member and said control mechanism to allow the control mechanism to control the constricting member, wherein said control mechanism may be removed from the host body and replaced without removal of the constricting member and the linking member.

38. (Withdrawn) The method of claim 37, wherein the constricting member comprises

engaging elements defining an opening therebetween, the method comprising surrounding the body canal with said engaging elements so that said body canal extends through said opening.

39. (Withdrawn) The method of claim 37, comprising suturing the engaging elements to the vessel.

40. (Withdrawn) The method of claim 37, further comprising implanting the control mechanism remote from the body canal.

41. (Currently Amended) A remote telemetry system for an implantable apparatus for controlling fluid flow within a host body, the telemetry system comprising:

a signaling mechanism for capable of sending and receiving signals to and from a control unit implanted in a host body in order to monitor the operation of the implantable apparatus, wherein based on information received from the control unit the telemetry system sends signals to the control unit for being capable of altering or maintaining operating settings of the implantable apparatus, said system and further comprising at least one sensor to monitor actions of the implantable apparatus on the host body, and a mechanism to interrogate said sensor to permit feedback on the sensed data,

wherein at least one of said sensors is provided to monitor capable of monitoring pressure exerted by a moveable part of said implantable apparatus on a part of said host body, the feedback on the sensed data causing including commands to be sent to said control unit to alter or maintain the range of movement or position of said moveable part within the host body of said implantable apparatus.

42. (Original) The remote telemetry system of claim 41, wherein said signals are electromagnetic radiation.

43. (Original) The remote telemetry system of claim 42, wherein said signals are radio waves.

44. (Cancelled)

45. (Cancelled)

46. (Withdrawn) An implantable apparatus for controlling fluid flow in a host body, the implantable apparatus comprising:

a constricting mechanism including a reciprocal member for selectively applying pressure to a canal of the host body in order to selectively constrict said canal;

a pressure sensor for detecting the pressure applied by said reciprocal member to said canal; and

a feedback system for altering movement of said reciprocal member in response to the pressure sensed by said pressure sensor in order to prevent damage to said canal.

47. (Currently Amended) The remote telemetry system of claim 41, further comprising a second sensor for sensing a at least one of said sensors senses battery charge level.

48. (Previously Presented) The remote telemetry system of claim 41, wherein said system provides for an override control command to open and/or close the implantable apparatus.

49. (New) The remote telemetry system of claim 41 wherein the implantable apparatus is adapted for controlling fluid flow in a urethra of the host body and said sensor senses and provides feedback on the amount of pressure the movable part places on the urethra.

50. (New) The remote telemetry system of claim 41 wherein said movable part maintains the body part of the host body in a continuous normally closed position until directed by the control unit to temporarily open.

51. (New) A remote telemetry system for an implantable apparatus for controlling fluid flow of a body canal or vessel within a host body, the telemetry system comprising:

an implantable apparatus having a control unit and a movable part, said control unit and said movable part implanted within a host body, said control unit directing the position of said movable part within the host body, wherein in a body canal or vessel closed position said movable part is adapted to contact and apply pressure to a body canal or vessel within the host body;

a signaling mechanism for sending and receiving signals to and from the control unit in order to monitor the operation of the implantable apparatus, wherein based on information received from the control unit the telemetry system sends signals to the control unit for altering or maintaining operating settings of the implantable apparatus, said system further comprising at least one sensor to monitor actions of the implantable apparatus on the host body, and a

mechanism to interrogate said sensor to permit feedback on the sensed data, wherein at least one of said sensors is provided to monitor pressure exerted by the moveable part on the body canal or vessel of said host body, the feedback on the sensed data causing commands to be sent to said control unit to alter or maintain the range of movement or position of said moveable part within the host body.

52. (New) The remote telemetry system of claim 51, wherein said signals are electromagnetic radiation.

53. (New) The remote telemetry system of claim 51, wherein said signals are radio waves.

54. (New) The remote telemetry system of claim 51, further comprising a second sensor for sensing a battery charge level to determine whether a command should be sent to release pressure on the body canal or vessel by the movable part such that the body canal or vessel is an at least partially open position.

55. (New) The remote telemetry system of claim 51, wherein said system provides for an override control command to open and/or close the implantable apparatus.

56. (New) The remote telemetry system of claim 51 wherein the body canal or vessel is a urethra within the host body and said implantable apparatus is adapted for controlling fluid flow in the urethra of the host body; wherein and said sensor senses and provides feedback on the amount of pressure the movable part places on the urethra.

57. (New) The remote telemetry system of claim 51 wherein said movable part maintains the body canal or vessel of the host body in a continuous normally closed position until directed by the control unit to temporarily open.

58. (New) A remote telemetry system for an implantable apparatus for controlling fluid flow of an urethra in a host body, the telemetry system comprising:

an implantable apparatus having a control unit and a movable part, said control unit and said movable part implanted within a host body, said control unit directing the position of said movable part within the host body, wherein in an urethra closed position said movable part is adapted to contact and apply pressure to the urethra;

a signaling mechanism for sending and receiving signals to and from the control unit in order to monitor the operation of the implantable apparatus, wherein based on information received from the control unit the telemetry system sends signals to the control unit for altering or maintaining operating settings of the implantable apparatus,

said system further comprising a first sensor to monitor pressure exerted by the movable part on the urethra, a second sensor for sensing a battery charge level to determine whether a command should be sent to release pressure on the urethra by the movable part such that the urethra is at least partially open position, and a mechanism to interrogate said first sensor to permit feedback on the sensed data from provided by said first sensor;

wherein the feedback on the sensed data causing commands to be sent to said control unit to alter or maintain the range of movement or position of said moveable part with respect to the urethra;

wherein said movable part adapted to maintain the body canal or vessel of the host body in a continuous normally closed position until directed by the control unit to temporarily open.

59. (New) The remote telemetry system of claim 58, wherein said signals are electromagnetic radiation.

60. (New) The remote telemetry system of claim 58, wherein said signals are radio waves.

61. (New) The remote telemetry system of claim 58, wherein said system provides for an override control command to instruct the control unit to position the movable part such that the urethra is at least partially opened to permit fluid flow.